FIELD TRIP GUIDE

MECKLENBURG COUNTY NATURE CENTERS



THE NATURE CENTERS

Latta Plantation Nature Center...

serves as the gateway to the 1,474 acres of Latta Plantation Nature Preserve and is the source for educational programs and information on the preserve's natural communities, flora, and fauna. The preserve, Mecklenburg County's largest, forms a green peninsula extending into Mountain Island Lake and protects a natural heritage site and several endangered plants. The nature center features live, native animals, a discovery hall, an outdoor amphitheater, and a gift shop. Outside, visitors can stop and observe nature in action at the National Wildlife Federation certified Backyard Habitat Garden which includes bird feeding stations, butterfly gardens, garden pond, and demonstration compost area.

McDowell Nature Center...

is located within the 1,107- acre McDowell Nature Preserve and is the source for educational programs and information on the preserve's natural communities, flora, and fauna. The preserve, the oldest in Mecklenburg County, has been left 90% undeveloped and protects mostly forested, rolling terrain along the banks of Lake Wylie.

Reedy Creek Nature Center...

is located within the Reedy Creek Nature Preserve. It is over 1 mile from the park entrance to the nature center. Reedy Creek Nature Center features live, native animals, an exhibit hall, a classroom, and a gift shop. Outside, visitors can stop and observe nature in action at the National Wildlife Federation certified Backyard Habitat Garden which includes bird-feeding stations. The Preserve protects 737 acres of natural, forested habitat within Reedy Creek Park. Reedy Creek Nature Preserve is also home to Reedy Creek Nature Center and the Dr. James F. Matthews Center for Biodiversity Studies.



the programs

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Scheduling and Registration

Our centers are dedicated to providing you timely assistance in helping you plan a great field trip. Our programs are scheduled on a first come, first serve basis. A minimum of four (4) weeks advance notice is suggested. Spring is an extremely popular field study time so a twelve (12) week notice is recommended. Field trip programs should be scheduled with the respective nature centers.

The Curricula

Each of the curricula for the K-5th grades school programs has been correlated to meet the North Carolina Essential Standards and Common Core Standards. Our preschool programs are guided by "Foundations: Early Learning Standards for North Carolina Preschoolers and Strategies for Guiding Success" and "NAAEE Early Childhood Environmental Education Programs: Guidelines For Excellence." We are constantly evaluating our curricula to make certain we are providing the best environmental education programs in the area. At the end of your program you will receive a program evaluation. Please fill this out as this helps us further improve our programs to meet your needs or go online at www.parkandrec.com/survey

Stay For Lunch

We welcome groups to enjoy your lunch at our centers in one of our outdoor pavilions. In case of inclement weather, appropriate indoor arrangements may be made. Please let us know when you schedule your field trip if you will be staying for lunch.

Group Behavior

Student behavior and supervision is the responsibility of the teacher or chaperone at all times during your field trip. Please do not leave any students unattended.

PROGRAM INFORMATION

Information Needed to Schedule a Field Trip

- Number of students and classes
- 2-3 date options
- Arrival and departure times
- Program selections (programs are 1-2 hour in length)
- Lunch plans

Program Fees (per hour of program, per student):

CMS Schools \$1.50 (at naure center) \$2.00 (at school)

Non-CMS Schools \$2.50 (at nature center) \$3.00 (at school)

- 10 student minimum
- 25 student maximum per educator
- · There is no charge for teachers or chaperones
 - *Special arrangements to accommodate larger groups may be made pending staff availability.

Payment for Field Trips

Your payment is based only on the number of students that participate in the field trip that day. Teachers and chaperones are not charged. On scheduling the field trip, please provide us an accurate number of students attending. When you schedule the field trip, we will provide you with the estimated total, amount due and send out a confirmation with all of the details. Payment in full is due before or on the date of your field trip.

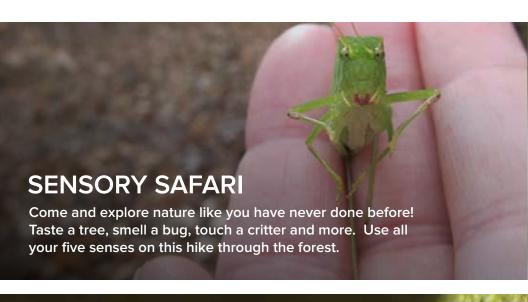
- Groups may pay by Visa, Mastercard, cash or check.
- Make check payable to the respective center.
- If you have to cancel, we will make every effort to reschedule, but cannot guarantee you a date.

Programs for Middle and High School

At this time we do not have set programs for middle and high school students, but you can call the respective nature center and we can develop a custom program for your group with advanced notice.

PROGRAMS FOR PRESCHOOL

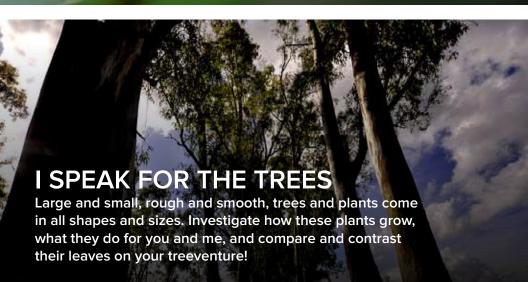
Our nature centers are a perfect place to bring your preschool students to learn about the natural world. The programs are developmentally appropriate, consider the whole child, provide inquiry based hands-on activities, authentic experiences, and time for questions. Each of the curricula is by "Foundations: Early Learning Standards for NC Preschoolers and Strategies for Guiding Success" and NAAEE Early Childhood Environmental Education Programs: Guidelines for Excellence. At the end of of the program you will recieve an evaluation, please fill this out as this helps us improve our progams.











PROGRAMS FOR K-5

Each of the curricula for the K-5th grades school programs has been correlated to meet the North Carolina Essential Standards and Common Core Standards. We are constantly evaluating our curriculum to make certain we are providing the best environmental education programs in the area. At the end of your program you will receive a program evaluation, please fill this out as this helps us further improve our programs to meet your needs.





TREMENDOUS TREES

We all need trees. They provide homes, food and other materials for people as well as wildlife. In this outdoor exploration, students will learn about the parts of a tree such as roots, trunk, branches, leaves, flowers, and fruit. We will compare the leaves and bark of various trees and examine their similarities and differences.

North Carolina Essential Standards

- K.L.1.2: Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movements and basic needs.
- 1.L.1.1: Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.
- 1.L.1.2: Give examples of how the needs of different plants and animals can be met by their environments in NC or different places around the world.
- 1.L.2.1: Summarize the basic needs of a variety of different plants (including air, water, nutrients and light) for energy and growth.
- 2.L.2.2: Recognize that there is variation among individuals that are related.
- 3.L.2.1: Remember the function of the following structures as it relates to the survival of plants in their environment: roots, stems, leaves, flowers.
- **3.L.2.2**: Explain how environmental conditions determine how well plants survive and grow.
- 3.L.2.3: Summarize the distinct stages of the life cycle of seed plants.

Common Core Standards

R4: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

SL1: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.





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- 1.L.2.1: Summarize the basic needs of a variety of different animals (including air, water and food) for energy and growth.
- 3.L.2.1: Remember the function of the following structures as it relates to the survival of plants in their environment: roots, stems, leaves, flowers.
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- 4.L.1.1: Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
- 4.L.1.2: Explain how animals meet their needs by using behaviors in response to information received from the environment.
- 4.L.1.3: Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).
- 5.L.1.2: Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
- 5.L.1.3: Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystems.

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of its fascinating residents.

- 1.E.2.1: Summarize the physical properties of earth materials, including rocks, minerals, soils and water that make them useful in different ways.
- 1.E.2.2: Compare the properties of soil samples from different places relating their capacity to retain water
- 1.L.1.1: Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.
- 1.L.1.2: Give examples of how the needs of different plants and animals can be met by their environments in NC or different places around the world.
- 3.L.2.4: Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.
- 4.L.2.3: Give examples of how the surface of the Earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.

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- K.L.1.1: Compare different types of the same animal to determine individual differences within a particular type of animal.
- K.L.1.2: Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movements and basic needs.
- 1.L.1.1: Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.
- 1.L.1.2: Give examples of how the needs of different plants and animals can be met by their environments in NC or different places around the world.
- 1.L.2.2: Summarize the basic needs of a variety of different animals (including air. water and food) for energy and growth.
- 2.L.2.2: Recognize that there is variation among individuals that are related.
- 4.L.1.1: Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
- 4.L.1.2: Explain how animals meet their needs by using behaviors in response to information received from the environment.
- 4.L.2.4: Explain how differences among animals of the same population sometimes. give individuals an advantage in surviving and reproducing in changing habitats.
- 5.L.2.1: Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests and grasslands.
- 5.L.2.2: Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
- 5.L.2.3: Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystems.

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4th + 5th grade versions of this program also meet Common Core Standards SL1 + SL2.









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- 1.L.1.2: Give examples of how the needs of different plants and animals can be met by their environments in NC or different places around the world.
- 1.L.2.2: Summarize the basic needs of a variety of different animals (including air, water and food) for energy and growth.
- 2.L.1.1: Summarize life cycle of animals: birth, developing into adult, reproducing, aging, death.
- 2.L.1.2: Compare lifecycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies, or frogs.
- 4.L.1.1: Give examples of changes in an organism's environment that are beneficial to it and some that are harmful
- 4.L.1.2: Explain how animals meet their needs by using behaviors in response to information received from the environment.

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- 1.L.1.1: Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.
- 1.L.1.2: Give examples of how the needs of different plants and animals can be met by their environments in NC or different places around the world.
- 1.L.2.2: Summarize the basic needs of a variety of different animals (including air, water and food) for energy and growth.
- 2.L.1.1: Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
- 2.L.1.2: Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies, or frogs.

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SCALY

Reptiles and amphibians are often confused with each other. We will introduce students to the characteristics that make each of these groups of animals different as well as show similarities. We will also introduce you to our reptile and amphibian friends from the nature center!

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- 2.L.1.1: Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
- 2.L.1.2: Compare lifecycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies, or frogs.
- 2.L.2.1: Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
- 4.L.1.1: Give examples of changes in an organism's environment that are beneficial to it and some that are harmful
- 4.L.1.2: Explain how animals meet their needs by using behaviors in response to information received from the environment.

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ROCKIN' ROCKS

Geology is best explored hands-on! Discover the different and unique properties of rocks and minerals found in North Carolina and throughout the country. Also explore the effects mining and the harvesting of these resources has on the environment.

North Carolina Essential Standards

- 4.P.2.1: Compare the physical properties of samples of matter (strength, hardness, flexibility, ability to conduct heat, ability to conduct electricity, ability to be attracted by magnets, reaction to water and fire).
- 4.P.2.2: Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage and streak.
- 4.P.2.3: Classify rocks as metamorphic, igneous or sedimentary based on their composition, how they are formed and the processes that create them.

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- 2.E.1.1: Summarize how energy from the sun serves as a source of light that warms tha land, air and water.
- 2.E.1.2: Summarize weather conditions using qualitative and quantitative measures to describe: temperature, wind direction, wind speed, precipitation.
- 2.E.1.3: Compare weather patterns that occur over time and relate observable patterns to time of day and time of year
- **2.E.1.4:** Recognize the tools scientists use for observing, recording, and predicting weather changes from day to day and during the seasons.
- 5.E.1.1: Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.
- 5.E.1.2: Predict upcoming weather events from weather data collected through observation and measurements.
- 5.E.1.3: Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.

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OTHER OPPORTUNITIES

Outreach Programs - We come to you!

Outreach programs are the perfect way for your students to experience environmental education programs without the hassle of field trip planning! Each of the programs listed can become an outreach experience and will last one hour in length. If there is more than one class, we can send additional educators or teach multiple programs in one day. Each of these programs will include inquiry-based skills and experiential learning and will be an enriching experience for your students.

The majority of our field trips programs can be an outreach program taught at your school. Because each school varies in space and other specifications, contact the respective nature center and speak with an educator to find the program that fits your needs.

Service Learning Experiences

The Division of Natural Resources provides opportunities for schools, scout troops, and other organized youth groups to participate in community service projects benefiting local biodiversity and natural areas. These experiences combine an actual work project with educational activities and lessons. Service learning experiences are working projects, actively involving all participants - they are not field trips. Contact the respective center for more information.

Weed Warriors Service Learning Program

Mecklenburg County has several nature preserves, greenways, and other natural areas that are in danger of being overtaken by Green Invaders. Students involved in the Weed Warriors program will have the opportunity to learn about Invaders specific to our area in their classrooms, schoolyards and nature preserves around the county. They will then help remove Green Invaders from specific areas in Mecklenburg County's nature preserves or greenways that are in trouble.



www.parkandrec.com



Click on Nature Preserves and Natural Resources to explore each facility, get directions and learn more about the programs and exhibits at each of the centers. You will also find information on how each of the programs meet the North Carolina State Essential Standards.

CONTACT INFORMATION

Nature Center Hours

Monday-Saturday 9:00AM to 5:00PM Sunday 1:00PM to 5:00PM

Latta Plantation Nature Center

6211 Sample Road Huntersville, NC 28078 (704) 875-1391

McDowell Nature Center

15222 York Road Charlotte, NC 28278 (704) 588-5224

Reedy Creek Nature Center

2900 Rocky River Road Charlotte, NC 28215 (704) 432-6460

